

Year 5 Rubric – Four Operations and Mental Multiplication & Division

	Uses efficient written methods to add whole and decimal numbers	Uses efficient written methods to subtract whole and decimal numbers	Uses efficient written methods to multiply whole and numbers	Uses efficient written methods to divide whole numbers with remainders	Uses efficient mental computation strategies to multiply whole numbers	Uses efficient mental computation strategies to divide whole numbers
Advanced	<ul style="list-style-type: none"> As below with a high level of accuracy and with any large whole integers or decimal numbers. 	<ul style="list-style-type: none"> As below with a high level of accuracy and with any large whole integers or decimal numbers. 	<ul style="list-style-type: none"> As below with a high level of accuracy and with any large whole number. 	<ul style="list-style-type: none"> As below with a high level of accuracy and with any large whole number. Divides multi digit numbers with 2 or 3 digit numbers. Uses decimal remainders 	<ul style="list-style-type: none"> Recalls square and square roots of numbers to 100 Uses efficient strategies to multiply 2 digit by 2 digit numbers. Clearly explains the strategies they used 	<ul style="list-style-type: none"> Divides 2 or 3 digit by 1 digit - related to basic facts with/without remainder e.g. $120 \div 4 = 30$ or $122 \div 4 = 30 \text{ r } 2$) Divides 4+ digit numbers by divisors of 10, 100 and 1000 (e.g. $4000 \div 1000 = 4$ etc)

Advanced

In a unit the student:

- Is well in advance of the expected requirements
- Has achieved the requirements and provided outstanding work products and evidence in a variety of ways
- Consistently provides evidence of learning that is high in quality and quantity
- Is confident and articulate about sharing their learning with others
- Demonstrates and applies higher level knowledge, skills and understandings

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	Uses efficient written methods to add whole and decimal numbers	Uses efficient written methods to subtract whole and decimal numbers	Uses efficient written methods to multiply whole numbers	Uses efficient written methods to divide whole numbers with remainders	Uses efficient mental computation strategies to multiply whole numbers	Uses efficient mental computation strategies to divide whole numbers
3 = Proficient (Phase 3-4)	<ul style="list-style-type: none"> • Uses efficient written strategies to add large whole numbers • Uses efficient written strategies to add decimal numbers • Explains regrouping • Selects and uses an appropriate sequence of operations to solve word problems • Uses effective strategies to estimate to check for reasonableness • Recalls addition facts to 20 <p>Answers are mostly correct</p>	<ul style="list-style-type: none"> • Uses efficient written strategies to subtract two digit numbers from three digit • Uses efficient written strategies to subtract decimal numbers • Explains regrouping • Selects and uses an appropriate sequence of operations to solve word problems • Uses effective strategies to estimate to check for reasonableness • Recalls subtraction facts to 20 <p>Answers are mostly correct</p>	<ul style="list-style-type: none"> • Explains written method • Models (uses materials) long multiplication • Memorizes, practices and recalls timetables to 10x10 • Multiplies 3 or 2 digit numbers by 2 digit • Multiplies by 10 and 100 (using place value) <p>Answers are mostly correct</p>	<ul style="list-style-type: none"> • Explains what division is • Explains the relationship between division and subtraction • Explains the inverse relationship between multiplication and division • Divides large number 4, 5 and 6 digit by 1 digit numbers (internal zeros in answer) with remainders • Divides 4 digit numbers with divisors of 10, 100 and 1000 (e.g. $2390 \div 10$ OR $2390 \div 100$) • Memorizes, practices and recalls division facts to 100 <p>Answers are mostly correct</p>	<ul style="list-style-type: none"> • Memorizes, practices and recalls multiplication facts to 100 • Multiplies 2 digit by 1 digit numbers (most answers are correct) • Explains the strategies used 	<ul style="list-style-type: none"> • Memorizes, practices and recalls division facts to 100 • Divides 2 digit by 1 digit - related to basic facts with/without remainder e.g. $36 \div 4 = 9$ or $38 \div 4 = 9 \text{ r } 2$) • Divides 4 digit numbers by divisors of 10, 100 and 1000 (e.g. $4000 \div 1000 = 4$ etc)

Proficient

In a unit the student:

- Has achieved the requirements and provided quality work products and evidence in a variety of ways
- Usually provides evidence of learning that is high in quality and quantity
- Is able to discuss their learning in meaningful ways to others
- Demonstrates and applies good knowledge, skills and understandings

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Consolidating	<ul style="list-style-type: none"> • Uses efficient written strategies to add large whole numbers • Uses written strategies to add decimal numbers • Selects and uses an appropriate sequence of operations to solve word problems • Estimates to check for reasonableness • Recalls addition facts to 20 	<ul style="list-style-type: none"> • Uses efficient written strategies to subtract two digit numbers from three digit with/without regrouping? • Uses efficient written strategies to subtract decimal numbers • Selects and uses an appropriate sequence of operations to solve word problems • Uses effective strategies to estimate to check for reasonableness 	<ul style="list-style-type: none"> • Explains written method • Models (uses materials) long multiplication • Memorizes, practices and recalls timetables to 10x10 • Multiplies 2 digit numbers by 2 digit • Multiplies by 10 and 100 (using place value) 	<ul style="list-style-type: none"> • Explains what division is • Explains the relationship between division and subtraction • Explains the inverse relationship between multiplication and division • Divides large number 4 or 5 digit by 1 digit numbers (internal zeros in answer) with remainders • Divides 4 digit numbers with divisors of 10, 100 and 1000 (e.g. $2390 \div 10$ OR $2390 \div 100$) • Memorizes, practices and recalls division facts to 100 	<ul style="list-style-type: none"> • Memorizes, practices and recalls multiplication facts to 100 • Multiplies 2 digit by 1 digit numbers (some answers are correct) • Strategy may only be visualizing the written method • Explains the strategies used 	<ul style="list-style-type: none"> • Memorizes, practices and recalls division facts to 100 • Divides 2 digit by 1 digit - related to basic facts with/without remainder e.g. $36 \div 4 = 9$ or $38 \div 4 = 9 \text{ r } 2$) • Divides 4 digit numbers by divisors of 10, 100 and 1000 (e.g. $4000 \div 1000 = 4$ etc)

Consolidating

In this unit the student:

- Has met the expected requirements and has provided average quality work products and evidence in a few ways
- Provides evidence of learning that is acceptable in quality and quantity
- Is able to discuss their learning with others
- Demonstrates and applies some knowledge, skills and understandings

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Beginning	<ul style="list-style-type: none"> • Uses doubles • Uses materials to add 2 digit to 1 digit numbers showing recording • Adds mental combinations of one digit and two digit combinations • Recognises 10 more/ 10 less etc • Solves simple number problems using addition • Estimates using addition to check for reasonableness • Recalls addition facts to 10 	<ul style="list-style-type: none"> • Models subtraction using materials • Recalls subtraction facts to 10 	<ul style="list-style-type: none"> • Recognizes and makes groups that are of the same number • Records the grouping informally 	<ul style="list-style-type: none"> • Groups and shares collections of objects equally • Records the sharing informally 	<ul style="list-style-type: none"> • Recalls multiplication facts (e.g. 2s, 5s and 10s) 	<ul style="list-style-type: none"> • Recalls division facts (e.g. 2s, 5s and 10s)

Beginning

In this unit the student:

- Has partially achieved the requirements and provided few quality work products and evidence in a limited way
- Provides evidence of learning that is limited in quality and quantity
- Is rarely able to discuss their learning in meaningful ways with others
- Has partially grasped the essential aspects and demonstrates limited knowledge, skills and understandings